

CLAIMS

1. A stereoscopic image generating method having a left image and a right image for stereoscopic vision, said stereoscopic image generating method comprising:
 - 5 a target region extraction step of extracting left and right target regions which do not include a pair of fused points corresponding to each other in the left image and the right image which are displayed on a display plane; and
 - 10 a removed region extraction step of extracting a more inconspicuous region as a removed region by identifying the more inconspicuous region between the left and right target regions.
- 15 2. The stereoscopic image generating method as claimed in claim 1, further comprising a removed region processing step of carrying out processing of making more inconspicuous the removed region extracted in the removed region extraction step than a region remaining after eliminating the removed region from the target regions.
- 20 3. The stereoscopic image generating method as claimed in claim 2, wherein the processing of making more inconspicuous is performed in advance before using binocular stereoscopic left and right images.
- 25 4. The stereoscopic image generating method as claimed in

claim 2, wherein the processing of making more inconspicuous
is a processing of blurring the removed region.

5. The stereoscopic image generating method as claimed in
5 claim 3, wherein the processing of making more inconspicuous
is a processing of blurring the removed region.

6. The stereoscopic image generating method as claimed in
claim 2, wherein the processing of making more inconspicuous
10 is a processing of reducing contrast of the removed region.

7. The stereoscopic image generating method as claimed in
claim 3, wherein the processing of making more inconspicuous
is a processing of reducing contrast of the removed region.

15 8. The stereoscopic image generating method as claimed in
claim 2, wherein the processing of making more inconspicuous
is a processing of reducing saturation or brightness of the
removed region.

20 9. The stereoscopic image generating method as claimed in
claim 3, wherein the processing of making more inconspicuous
is a processing of reducing saturation or brightness of the
removed region.

25 10. The stereoscopic image generating method as claimed
in claim 2, wherein the processing of making more

inconspicuous is a processing of bringing a hue of the removed region to a cold color family.

11. The stereoscopic image generating method as claimed
5 in claim 3, wherein the processing of making more inconspicuous is a processing of bringing a hue of the removed region close to a cold color family.

12. The stereoscopic image generating method as claimed
10 in claim 2, wherein the processing of making more inconspicuous is a processing of bringing a hue, saturation or brightness of the removed region close to a hue, saturation or brightness of a region remaining after eliminating the removed region from the target regions.

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13. The stereoscopic image generating method as claimed
in claim 3, wherein the processing of making more inconspicuous is a processing of bringing a hue, saturation or brightness of the removed region close to a hue, saturation 20 or brightness of a region remaining after eliminating the removed region from the target regions.

14. The stereoscopic image generating method as claimed
in claim 2, wherein the processing of making more
25 inconspicuous is one of or a combination of the following processings:

- (1) processing of blurring the removed region;

(2) processing of reducing contrast of the removed region;

(3) processing of reducing saturation or brightness of the removed region;

5 (4) processing of bringing a hue of the removed region close to a cold color family; and

10 (5) processing of bringing a hue, saturation or brightness of the removed region close to a hue, saturation or brightness of a region remaining after eliminating the removed region from the target regions.

15. The stereoscopic image generating method as claimed in claim 3, wherein the processing of making more inconspicuous is one of or a combination of the following processings:

(1) processing of blurring the removed region;

(2) processing of reducing contrast of the removed region;

20 (3) processing of reducing saturation or brightness of the removed region;

25 (4) processing of bringing a hue of the removed region close to a cold color family; and

(5) processing of bringing a hue, saturation or brightness of the removed region close to a hue, saturation or brightness of a region remaining after eliminating the removed region from the target regions.

16. A stereoscopic image generating apparatus having a left image and a right image for stereoscopic vision, said stereoscopic image generating apparatus comprising:
target region extraction means of extracting left and right target regions which do not include a pair of fused points corresponding to each other in the left image and the right image which are displayed on a display plane; and removed region extraction means of extracting a more inconspicuous region as a removed region by identifying the more inconspicuous region between the left and right target regions.

17. The stereoscopic image generating apparatus as claimed in claim 16, further comprising removed region processing means of carrying out processing of making more inconspicuous the removed region identified by said removed region extraction means than a region remaining after eliminating the removed region from the target regions.

18. A stereoscopic viewing method of watching a stereoscopic image having a left image and a right image for stereoscopic vision, said stereoscopic viewing method comprising:
a target region extraction step of extracting left and right target regions which do not include a pair of fused points corresponding to each other in the left image and the right image which are displayed on a display plane; and a removed region extraction step of extracting a more

inconspicuous region as a removed region by identifying the more inconspicuous region between the left and right target regions.

5 19. The stereoscopic viewing method as claimed in claim 18, further comprising a removed region processing step of carrying out processing of making more inconspicuous the removed region extracted in the removed region extraction step than a region remaining after eliminating the removed region from the target regions.

10 20. A stereoscopic viewing apparatus for showing a stereoscopic image having a left image and a right image for stereoscopic vision, said stereoscopic viewing apparatus comprising:

15 target region extraction means of extracting left and right target regions which do not include a pair of fused points corresponding to each other in the left image and the right image which are displayed on a display plane; and
20 removed region extraction means of extracting a more inconspicuous region as a removed region by identifying the more inconspicuous region between the left and right target regions.

25 21. The stereoscopic viewing apparatus as claimed in claim 20, further comprising removed region processing means of carrying out processing of making more inconspicuous the

removed region extracted in the removed region extraction means than a region remaining after eliminating the removed region from the target regions.

5 22. A program for controlling a stereoscopic image generating apparatus having a left image and a right image for stereoscopic vision, said program causing said stereoscopic image generating apparatus to execute:
a target region extraction step of extracting left and
right target regions which do not include a pair of fused
points corresponding to each other in the left image and
the right image which are displayed on a display plane; and
10 a removed region extraction step of extracting a more
inconspicuous region as a removed by identifying the more
inconspicuous region between the left and right target
regions.
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23. The program as claimed in claim 22, further causing
said stereoscopic image generating apparatus to execute a
removed region processing step of carrying out processing
of making more inconspicuous the removed region extracted
20 in the removed region extraction step than a region remaining
in the removed region extraction step after eliminating the removed region from the target regions.

25 24. A stereoscopic image generating method which has a left image and a right image for stereoscopic vision, and forms a virtual stereoscopic image by vergence angles generated

from individual points corresponding in the left image and the right image, said stereoscopic image generating method comprising:

a target region extraction step of extracting left and

5 right target regions which do not include a pair of fused points corresponding to each other in the left image and the right image which are displayed on a display plane;

a removed region extraction step of extracting a more inconspicuous region as a removed region by identifying the 10 more inconspicuous region between the left and right target

regions; and

a vergence angle modifying step of increasing a stereoscopic effect by carrying out deformation processing of a left image and a right image of a stereoscopic image which are prepared in advance to form the virtual stereoscopic 15 image, by increasing or decreasing the vergence angles generated by the individual points of the stereoscopic image according to a prescribed rule, and by altering a depth of the virtual stereoscopic image.

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25. The stereoscopic image generating method as claimed in claim 24, further comprising a removed region processing step of carrying out processing of making more inconspicuous the removed region extracted in the removed region extraction 25 step than a region remaining after eliminating the removed region from the target regions.